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ABSTRACT

This study tests the hypothesis that children who viewed videotaped aggression would imitate aggressive behaviors more frequently than would children who were not exposed to aggressive displays. A cognitive factor, reinforcement value, was also hypothesized to be a significant variable in the behavior of the children. Prior to treatment, subjects rated 15 toys for reinforcement value by coloring either a "happy" or a "sad" face to indicate like or dislike, respectively. Ratings were used to match subjects in experimental and control groups. Thirty-two first and second grade boys and girls then viewed and rated for reinforcement value 15 videotaped vignettes in each of which an adult male used one of 15 toys to perform one of 15 different aggressive acts against a bobo doll. Control group children did not view the vignettes. Following the vignettes, combined vignette and pre-experimental toy ratings were used as a basis for selecting eight toys for placement in a play room which contained a bobo doll. Subjects were observed at play in the room for five minutes by trained observers who recorded aggressive behavior. Among the results it was found that experimental group children exhibited significantly more aggressive behaviors than did control subjects, that boys exhibited significantly more imitative aggression than did girls. Further, reinforcement value was a significant factor in the imitative behavior of the children. (Author/RH)

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A Cognitive Component in Modeled Aggression: A Preliminary Examination

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ABSTRACT

FIRST AND SECOND GRADE BOYS AND GIRLS (N = 64) VIEWED AND RATED VIGNETTES OF NOVEL AGGRESSION FOR REINFORCEMENT VALUE, A COGNITIVE FACTOR HYPOTHESIZED TO BE SIGNIFICANT TO THE OBSERVATIONAL LEARNING OF AGGRESSION. EXPERIMENTAL CHILDREN AND CONTROL CHILDREN (WHO DID NOT VIEW THE VIGNETTES) WERE THEN OBSERVED IN A FREE PLAY SITUATION FOR FREQUENCY OF IMITATIVE AGGRESSION. CONSISTENT WITH PREVIOUS RESEARCH, RESULTS SHOWED MAIN EFFECTS FOR MODELING AND SEX. ALSO AS PREDICTED, REINFORCEMENT VALUE WAS SIGNIFICANT TO THE IMITATION AND INTERACTED SIGNIFICANTLY WITH SEX. THIS LATTER FINDING WAS DISCUSSED AS SUGGESTING COGNITIVE COMPONENTS IN THE SEX DIFFERENCES FOUND IN RESEARCH ON MODELED AGGRESSION.

A Cognitive Component in Modeled Aggression: A Preliminary Examination

Research in the area of children's aggression has long been the subject of intensive investigation. Evidence from these studies point to the importance of vicarious processes in the acquisition and maintenance of aggressive behavior. Moreover, when such aggressive displays are pervasive (as in televised violence), their impact may have socially significant implications.

Explanations presented with regard to the learning mechanisms involved in modeled aggression typically have dealt with characteristics of the model and the nature of presentation. There has been a growing emphasis in the modeling literature, however, on how characteristics of observers affect observational learning, particularly their cognitive processes. Recent theoretical developments have posited cognition to be an active contributor to experience and thus an integral part of observational learning and modeled behavior. Support for this focus on cognitive factors stems primarily from two sources: 1) social learning theory which has increasingly emphasized the role of cognition in behavior (Bandura, 1978), and 2) logical learning theory which was specifically formulated to conceptualize the cognitive determinants of learning (Rychlak, 1977).

Bandura conceptualizes social learning theory as including both cognition and the environment in a reciprocal deterministic relationship. Reciprocal determinism ascribes influence to both the person and the situation, with inputs from both sources interacting to change behavior.

SIMILARLY, RYCHLAK HAS FORMULATED A LOGICAL LEARNING THEORY WHICH HAS POSTULATED THE VALUE OF REINFORCEMENT AS A COGNITIVE CAUSAL INFLUENCE IN LEARNING. REINFORCEMENT VALUE IS THE COGNITIVE EVALUATION OF THE EXTENT OF SIGNIFICANCE OR SALIENCY WHICH AN ITEM HAS FOR AN INDIVIDUAL. THE REINFORCEMENT VALUE OF AN EXPERIENCE IS NOT THOUGHT TO RESIDE IN THE ENVIRONMENTAL STIMULUS, PER SE; RATHER, IT IS THE COGNITIVE QUALITY (I.E., INTENSITY OF SIGNIFICANCE) THE INDIVIDUAL "EXTENDS TO" STIMULI. EVIDENCE FROM LABORATORY STUDIES EXAMINING REINFORCEMENT VALUE AND ITS EFFECT ON LEARNING HAS SHOWN THAT MATERIALS EVALUATED POSITIVELY (I.E., MATERIALS RATED AS "PREFERRED" OR "LIKED") ARE RETAINED MORE READILY THAN NEGATIVELY RATED MATERIALS, DESPITE CONTROLS OVER ALTERNATE EXPLANATIONS OF MEANINGFULNESS (E.G., FREQUENCY OF EXPOSURE) (SEE RYCHLAK, 1977).

DESPITE THE EMPHASIS BOTH THEORETICAL PERSPECTIVES PLACE ON COGNITION IN LEARNING, NEITHER HAS PROVIDED EMPIRICAL SUPPORT FOR THIS EMPHASIS IN MODELING. BANDURA PRESENTS NO EVIDENCE FOR HIS CONCEPTUALIZATION AS APPLIED TO IMITATIVE AGGRESSION, AND LOGICAL LEARNING THEORY HAS NOT BEEN EXTENDED TO MODELING OR "BEHAVIORAL" DEPENDENT MEASURES IN GENERAL. BECAUSE REINFORCEMENT VALUE HAS BEEN SHOWN TO BE A COGNITIVE, CAUSAL INFLUENCE IN THE VERBAL LEARNING LABORATORY, ADAPTING THE REINFORCEMENT VALUE METHODOLOGY TO AN OBSERVATIONAL LEARNING PROCEDURE SEEMS A FRUITFUL APPROACH TO TESTING FOR THE COGNITIVE COMPONENT IN MODELING, POSTULATED BY BOTH THEORIES. THE SEMINAL RESEARCH PARADIGM FOR BANDURA, ROSS, AND ROSS (1963) WAS MODIFIED TO INCLUDE INDEPENDENT EVALUATIONS BY SUBJECTS OF THE AGGRESSIVE TOYS USED BY THE MODEL IN THE FILMS, AS WELL AS EVALUATIONS OF THE MODELED ACT ITSELF. THIS PROCEDURE PROVIDES A MEASURE OF WHAT OBSERVERS THEMSELVES BRING TO THE MODELING SITUATION AND EXPLORES HOW OBSERVER CHARACTERISTICS INTERACT WITH PRESENTATIONS OF MODELED AGGRESSION WHEN MEASURED IN FREE PLAY.

It was hypothesized that this paradigm would replicate results typically found in modeled aggression research (Baron, 1977). That is, children who viewed videotaped aggression would imitate aggressive behaviors more frequently than would those children who were not exposed to such aggressive displays. In addition, boys were predicted to imitate more of the model's aggression than would the girls. The cognitive factor, reinforcement value, was also hypothesized to be a significant variable in the behavior of the children. Although children would be provided an equal opportunity to perform either liked or disliked aggressive behaviors with either liked or disliked aggressive toys, significantly more modeled aggression would be exhibited with liked behaviors and with liked toys. This last hypothesis could be construed as predicting a selective attention component in observational learning. In other words, the subject is seen as attending to aspects of observed aggression (e.g., televised violence) which are idiographically meaningful to him or her.

Method

Subjects. Participants were 32 boys and 32 girls from the first and second grades of a local elementary school. Written informed consent from both children and parents was obtained prior to the study. Subject children were assigned to experimental and control conditions in the following manner. From the initial pool of 100 volunteers, 32 children were randomly assigned to the experimental group. From the remaining 68 children, subjects were randomly selected and than "matched" such that sex and grade were equally represented across the experimental and control groups.

MATERIALS. EXPERIMENTAL GROUP CHILDREN WERE EXPOSED TO A 7 1/2 MINUTE VIDEOTAPE CONTAINING 15, 20-SECOND VIGNETTES WITH A 10-SECOND INTERVAL BETWEEN EACH. EACH VIGNETTE DEPICTED AN ADULT MALE PERFORMING ONE OF 15 DIFFERENT AGGRESSIVE ACTS AGAINST A BOBO DOLL, USING ONE OF 15 DIFFERENT TOYS PAIRED IN NOVEL AGGRESSIVE WAYS (E.G., SPANKING WITH A TENNIS RACKET, STRANGLING WITH A JUMP ROPE). THE TOYS AND ACTS EMPLOYED IN THE VIGNETTES WERE SELECTED FROM A LARGER SAMPLE USING PILOT STUDY DATA.

FOR THE PILOT STUDY, 20 FIRST AND SECOND GRADE CHILDREN RATED 30 ACTS AND 30 TOYS, TYPICALLY USED IN AGGRESSION RESEARCH, FOR REINFORCEMENT VALUE. TOYS AND ACTS WHICH WERE "LIKED" BY AT LEAST SEVEN SUBJECTS AND "DISLIKED" BY AT LEAST SEVEN OTHER SUBJECTS WERE SELECTED FOR INCLUSION IN THE PRESENT STUDY. THIS WAS TO ENSURE SOME VARIABILITY OF RATING IN THE PRESENT STUDY. IN ALL, 15 ACTS AND 15 TOYS WERE CHOSEN.

PROCEDURE. APPROXIMATELY TWO WEEKS PRIOR TO VIEWING THE VIGNETTES, CHILDREN RATED EACH OF THE TOYS USED IN THE STUDY FOR REINFORCEMENT VALUE. TOYS WERE PRESENTED INDIVIDUALLY TO GROUPS OF CHILDREN WHO INDICATED THEIR LIKE OR DISLIKE FOR THEM BY COLORING EITHER A "HAPPY" OR A "SAD" FACE ON A SEPARATE SHEET OF PAPER. THESE SEPARATE TOY RATINGS PROVIDED A RELATIVELY INDEPENDENT ASSESSMENT OF THE OBJECTS USED IN THE VIGNETTES AND WERE USED TO MATCH SUBJECTS IN THE EXPERIMENTAL AND CONTROL CONDITIONS. IN ALL CASES, "MATCHED" PAIRS OF EXPERIMENTAL AND CONTROL SUBJECTS HAD IDENTICAL TOY RATINGS.

TWO WEEKS LATER--FOR SUBJECTS IN THE EXPERIMENTAL CONDITION--THE EXPERIMENTER ESCORTED THE CHILDREN INDIVIDUALLY TO THE EXPERIMENTAL AREA WHERE THEY VIEWED THE VIGNETTES. FOR THE EXPERIMENTAL PROCEDURE, CHILDREN FIRST VIEWED AND RATED SEVERAL NONAGGRESSIVE PRACTICE VIGNETTES (DEPICTING A DIFFERENT MODEL PLAYING WITH UNRELATED TOYS) IN ORDER TO

FAMILIARIZE THEMSELVES WITH THE PROCEDURE. SUBJECTS THEN VIEWED AND RATED EACH OF THE 15 AGGRESSIVE VIGNETTES, AGAIN, UTILIZING "HAPPY/SAD" FACES TO INDICATE LIKE/DISLIKE. PRESENTATIONS OF THE VIGNETTES WERE COUNTERBALANCED ACROSS EXPERIMENTAL SUBJECTS.

FOLLOWING PRESENTATION OF THE VIGNETTES, THE EXPERIMENTER LEFT THE ROOM AND SELECTED EIGHT TOYS FOR PLACEMENT IN THE PLAYROOM. THE AGGRESSIVE TOYS WERE CHOSEN ON THE BASIS OF THE COMBINED VIGNETTE AND PRE-EXPERIMENTAL TOY RATINGS. THE EXPERIMENTER CHOSE FOUR LIKED AND FOUR DISLIKED VIGNETTES SUCH THAT EACH SET OF FOUR VIGNETTES CONTAINED TWO LIKED AND TWO DISLIKED TOYS. THE SEQUENCE OF TOY SELECTION WAS COUNTER-BALANCED ACROSS ALL SUBJECTS. THUS, ALL TOYS HAD AN EQUAL PROBABILITY OF BEING SELECTED FOR THE PLAYROOM.

CONTROL GROUP CHILDREN DID NOT VIEW THE VIGNETTES; INSTEAD, THEY WERE ESCORTED FROM THEIR CLASSROOM DIRECTLY TO THE PLAYROOM AREA. ALSO, CHILDREN IN THIS GROUP WERE "YOKED" TO SUBJECTS IN THE EXPERIMENTAL CONDITION, IN THAT CONTROL CHILDREN PLAYED WITH THE SAME EIGHT TOYS SELECTED FOR THEIR EXPERIMENTAL GROUP "PARTNERS." CONTROL AND EXPERI-MENTAL GROUP SUBJECTS WERE RUN AT APPROXIMATELY THE SAME TIME.

AFTER THE EXPERIMENTER HAD SELECTED AND RANDOMLY PLACED THE EIGHT TOYS ABOUT THE PLAYROOM, HE ESCORTED THE SUBJECT TO THE ROOM. CHILDREN WERE TOLD TO "PLAY WITH THE TOYS" WHILE THE EXPERIMENTER WAS "AWAY FOR A WHILE." THE EXPERIMENTER RETURNED TO THE PLAYROOM AFTER FIVE MINUTES HAD ELAPSED.

ALL CHILDREN WERE OBSERVED IN THE PLAYROOM BY TWO RATERS WHO WERE UNOBTRUSIVELY POSITIONED BEHIND A ONE-WAY MIRROR. ALL RATERS WERE COLLEGE UNDERGRADUATES WHO WERE TRAINED, USING STANDARD VIDEOTAPES, TO A CRITERION OF 90% AGREEMENT BEFORE OBSERVING IN THE CLASSROOM. IN

ADDITION, OBSERVER PAIRINGS WERE ROTATED THROUGHOUT THE COURSE OF THE STUDY. RANDOMLY SELECTED RELIABILITY CHECKS WERE PERFORMED ON 67% OF ALL OBSERVATIONS.

DURING THE FIVE MINUTE SESSION, OBSERVERS RATED EACH CHILD USING AN AUDITORIALLY SIGNALLED 10 SECOND OBSERVE/5 SECOND RECORD INTERVAL SCHEDULE. FOR EACH AGGRESSIVE BEHAVIOR, OBSERVERS INDICATED THE SPECIFIC ACT, THE SPECIFIC TOY USED, AND WHETHER OR NOT THE ACTION WAS AGAINST THE BOBO DOLL.

AT THE END OF THE FIVE MINUTE SESSION, THE EXPERIMENTER RETURNED TO THE PLAYROOM AND ESCORTED THE SUBJECT BACK TO THE CLASSROOM.

RESULTS

IMITATION WAS DEFINED AS ANY BEHAVIOR WHICH DUPLICATED ANY ONE OF THE 15 TOY-ACT PAIRS DEPICTED IN THE VIGNETTES. THE FREQUENCY WITH WHICH SUBJECTS EXHIBITED IMITATIVE AGGRESSION, THEN, WAS THE DEPENDENT MEASURE. RELIABILITY FOR THE RATER PAIRS OBSERVING THESE BEHAVIORS WAS CALCULATED USING COHEN'S UNWEIGHTED KAPPA. FOR ALL RELIABILITY CHECKS, KAPPA'S RANGED FROM .77 TO 1.00, WITH A MEAN OF .96.

A ONE-WAY ANOVA PERFORMED ON THE FREQUENCY DATA REVEALED THAT EXPERIMENTAL GROUP SUBJECTS DISPLAYED SIGNIFICANTLY MORE IMITATIVE AGGRESSION THAN DID CONTROL CHILDREN, $F(1,63) = 64.84$, $p < .001$.

DATA FOR EXPERIMENTAL GROUP CHILDREN WERE SUBJECTED TO A 2(SEX) X 2(GRADE) X 2(TOY RATING) X 2(VIGNETTE RATING) ANOVA, WITH THE LAST TWO FACTORS TREATED AS WITHIN-SUBJECTS VARIABLES. AS PREDICTED, THE RESULTS (SEE TABLE 1) SHOWED THAT BOYS IMITATED SIGNIFICANTLY MORE OF THE MODEL'S AGGRESSIVE ACTIONS THAN DID THE GIRLS, $F(1,14) = 15.47$, $p < .001$. MOREOVER, SUBJECTS EXHIBITED SIGNIFICANTLY MORE IMITATIVE AGGRESSIVE BEHAVIORS WITH LIKED TOYS, $F(1,14) = 25.25$, $p < .001$, AND

USING ACTIONS DEPICTED IN LIKED VIGNETTES, $F(1,14) = 21.72$, $p < .001$, THAN WITH DISLIKED TOYS OR DISLIKED VIGNETTES. FURTHER, SIGNIFICANT SEX BY TOY RATING, $F(1,14 = 10.69$, $p < .01$, AND SEX BY VIGNETTE RATING $F(1,14) = 5.43$, $p < .03$, INTERACTIONS ALSO WERE FOUND. THAT IS, BOYS EXHIBITED A SIGNIFICANTLY GREATER DISPARITY IN EMPLOYING LIKED OVER DISLIKED TOYS, AND IN PERFORMING LIKED OVER DISLIKED AGGRESSIVE ACTS, THAN DID GIRLS (SEE TABLE 1). NO SIGNIFICANT DIFFERENCES DUE TO GRADE OF SUBJECT WERE FOUND.

DISCUSSION

AS PREDICTED FROM PREVIOUS FINDINGS IN MODELED AGGRESSION, RESULTS SHOW BOTH A "MODELING EFFECT" AND A "SEX EFFECT." EXPERIMENTAL GROUP CHILDREN EXHIBITED SIGNIFICANTLY MORE AGGRESSIVE BEHAVIORS THAN DID CONTROL SUBJECTS, AND BOYS EXHIBITED SIGNIFICANTLY MORE IMITATIVE AGGRESSION THAN DID GIRLS (SEE BANDURA, ROSS, & ROSS, 1963; MACCOBY & JACKLIN, 1974).

THE THIRD PREDICTION, BASED UPON RESEARCH ON REINFORCEMENT VALUE, WAS ALSO CONFIRMED. REINFORCEMENT VALUE WAS A SIGNIFICANT FACTOR IN THE IMITATIVE BEHAVIOR OF THE CHILDREN IN THE PRESENT STUDY, AND SUGGESTS THAT COGNITION IS AN IMPORTANT CONTRIBUTOR TO MODELED AGGRESSION. IMITATIVE AGGRESSION APPEARED TO BE SELECTIVELY ENCODED AND ENACTED, DEPENDENT UPON EACH CHILD'S IDIOGRAPHIC, COGNITIVE EVALUATION OF THE VIGNETTES. ACCORDING TO LOGICAL LEARNING THEORY, THIS LEARNING SELECTIVITY IS INDICATIVE OF A COGNITIVE "PREMISE" (OR SCHEMA) WHICH THE INDIVIDUAL UTILIZES TO MEANINGFULLY STRUCTURE INCOMING STIMULI. OBSERVED ACTS WHICH "FIT" THIS PREMISE BECOME MORE SALIENT TO THE INDIVIDUAL AND THUS ARE SELECTIVELY RETAINED.

AN ADDITIONAL SET OF RESULTS (VIZ., THE INTERACTIONS BETWEEN SEX

AND EACH OF THE RATING FACTORS) ALSO MERITS DISCUSSION. DIFFERENCES IN IMITATIVE AGGRESSIVE BEHAVIORS FOR LIKED OVER DISLIKED TOYS AND VIGNETTES ARE SIGNIFICANTLY MORE PRONOUNCED FOR THE BOYS THAN FOR THE GIRLS (SEE TABLE 1). IN OTHER WORDS, THE LIKED VIGNETTES AND TOYS APPEARED TO HAVE GREATER SALIENCY (OR VALUE) FOR THE BOYS THAN THEY DID FOR THE GIRLS.

THESE INTERACTIONS, ALTHOUGH NOT PREDICTED, ARE THEORETICALLY MEANINGFUL. THE LIKED OVER DISLIKED SUPERIORITY HAS BEEN SHOWN TO DIMINISH AS THE OVERALL COGNITIVE PREMISE OF THE TASK BECOMES INCREASINGLY NEGATIVE (SEE RYCHLAK, 1977, FOR A REVIEW). IN FACT, IF THE PREMISE IS EXTREMELY NEGATIVE, DISLIKED MATERIALS ARE MORE ATTENDED TO AND LEARNED (SEE RYCHLAK, ET AL., 1971). IT HAS BEEN SHOWN, FOR EXAMPLE, THAT A PERSON LIKING BASEBALL WILL LEARN POSITIVE ASPECTS OF THE SPORT MORE READILY, WHEREAS A PERSON DISLIKING BASEBALL WILL LEARN NEGATIVE ASPECTS OF THE SPORT MORE READILY (E.G., "THE GAME IS SLOW").

GIRLS, IN THE PRESENT STUDY, MAY HAVE FOUND THE AGGRESSIVE BEHAVIORS DEPICTED BY THE MODEL NOT SOCIALLY APPROPRIATE AND THEREFORE NOT AS LIKABLE AS DID THE BOYS. INFORMAL, POST-EXPERIMENTAL INTERVIEWS CONDUCTED WITH THE CHILDREN SUPPORT THIS HYPOTHESIS. IN MANY CASES, THE GIRLS FELT AGGRESSIVE BEHAVIORS WERE NOT PROPER AND DISLIKED THEM, WHEREAS THE BOYS WERE MUCH LESS CONCERNED WITH THIS ISSUE. THIS AMBIVALENT TO NEGATIVE EVALUATION OF THE TASK ON THE PART OF THE GIRLS MAY ACCOUNT FOR THE INTERACTIONS. THAT IS, BOYS WERE ABLE TO PREMISE THE TASK AND VIGNETTES IN GENERAL MORE POSITIVELY THAN THE GIRLS. CONSIDERING PAST RESEARCH ON REINFORCEMENT VALUE, THIS MAY HAVE MADE THE DIFFERENCES IN MODELED AGGRESSION OBSERVED IN THE TOY AND VIGNETTE FACTORS MORE PRONOUNCED FOR THE BOYS.

RESEARCH IS CURRENTLY UNDERWAY TO MORE FORMALLY INVESTIGATE THE IMPORTANT QUESTIONS RAISED BY THE SEX BY RATING INTERACTIONS. FOR INSTANCE, WOULD OBSERVATION OF STEREOTYPIC FEMALE BEHAVIORS (PERFORMED BY BOTH MALE AND FEMALE MODELS), RESULT IN GREATER LIKE OVER DISLIKE DISPARITIES IN THE IMITATIVE BEHAVIOR OF THE GIRLS? SUCH RESEARCH COULD BE IMPORTANT FOR UNDERSTANDING THE ROLE OF SOCIAL AND SEXUAL STEREOTYPING IN OBSERVATIONAL LEARNING. IN ANY CASE, PRESENT FINDINGS DO SUGGEST A COGNITIVE COMPONENT IN THE SEX DIFFERENCES FOUND IN CHILDREN'S MODELED AGGRESSION.

References

Bandura, A. The self system in reciprocal determinism. American Psychologist, 1978, 33, 344-358.

Bandura, A., Ross., D., & Ross, S. Vicarious reinforcement and imitative learning. Journal of Abnormal and Social Psychology, 1963, 67, 607-609.

Baron, R. A. Human Aggression. New York: Plenum Press, 1977.

Maccoby, E., & Jacklin, C. N. The psychology of sex differences. Stanford, CA: Stanford University Press, 1974.

Rychlak, J. F. The psychology of rigorous humanism. New York: Wiley-Interscience, 1977.

Rychalk, J. F., McKee, D. B., Schneider, W. E., & Abramson, Y. Affective evaluation in the verbal learning styles of normals and abnormals. Journal of Abnormal Psychology, 1971, 77, 11-16.

TABLE 1

SEX	Toy Rating: Liked	Toy Rating: Disliked	Vignette Rating: Liked	Vignette Rating: Disliked
Boys	3.51	0.61	3.01	1.14
Girls	1.26	0.44	1.28	0.42

Mean Frequencies on Imitative Aggressive for Experimental Boys and Girls for "Liked" and "Disliked" Toys and Vignettes